

American Journal of Public Health and THE NATION'S HEALTH

Volume 24

November, 1934

Number 11

Public Health in Tudor England*

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IN studying the development of public health activities in 16th century England, we find that it runs parallel with and, in fact, is contingent upon the growth of a strong, centralized government under the Tudors. The attitude of the State, especially in the reign of that amazing ruler, Elizabeth, was an enlightened one, seeking to guard and foster the welfare of all of the people. We are apt to forget today that in Elizabeth's time government regulation of industry and of many phases of the life of the people was the accepted order. It is significant that from such a philosophy of government sprang many of our basic public health procedures.

Manifestations of this ideal are seen in the various efforts to better the sanitary and health conditions of the people, not only in attempting to control epidemics, but in aiming also to eradicate some of the fundamental factors in the cause and spread of disease. Housing plans were proposed to relieve the overcrowding of cities, pure food laws were passed, rules made to keep the streets

clean, and a commission appointed to regulate the disposal of sewage. All of these projects had the definite purpose of protecting and improving the health of the populace.

A Commission on Sewers had been established as early as the 15th century by Henry VI. It provided severe penalties for the pollution of streams, and these were enforced. Tanners and brewers were required to drain their waste into cesspools. Owners of swine had to provide suitable accommodations for their animals, and to take special precautions that there should be no drainage from the sties into neighboring streams. In connection with animals it is interesting to see that Henry VII recognized the menace to health from slaughterhouses and passed a law forbidding them within cities or towns, "leste it might engendre sicknes, unto the destruction of the people."

For many years there had been a statute that any one throwing dung or offal into the streets would be fined 40 shillings, a considerable sum in those days, and there is abundant evidence that this was enforced. At first the task of sweeping the streets was left to the householder, but later it became a municipal function and men were hired

* Read at a Joint Session of the Child Hygiene and Public Health Education Sections of the American Public Health Association at the Sixty-third Annual Meeting in Pasadena, Calif., September 3, 1934.

by the towns and cities for the purpose. The unsanitary conditions of streets was considered an important factor in plague epidemics, and rules for cleaning streets are embodied in the Plague Orders.

It was realized that pure and wholesome food was essential to health. As Elizabeth stated in a proclamation: "We must provide . . . foode, and other like necessities for mans life upon reasonable prices, without which no citie can long continue," and, as another proclamation says, "food should be good, sweete, sound, and wholesome for mans body." The standards and quality of food products were regulated by various laws, such as the *Assize of Bread*. The government proceeded strenuously against anyone selling bad or tainted food, and in one case the punishment certainly fitted the crime: any dealer who sold bad pork was to be put in the pillory in the market place and the rancid flesh burned in his face. The problem of adequate food supply in times of dearth was a serious one, and in 1577 John Dee, Queen Elizabeth's physician, suggested that the government establish stores of grain to meet such emergencies. This was done in a small way by various municipalities, and in 1623 James I carried it out on a large scale. One of the reasons he gives for his action will strike a sympathetic note today. He says: "The Kings most Excellent Majestie, observing that in times of dearth His loving Subjects (especially the poorer sort) are pinched with the great want and deere prices of Corne, and that the Treasure of the Kingdome, in those times is much exhausted, in providing Corne from foraine parts, and againe, that in times of plenty, the Farmour and Husbandman, by the low prices, and want of vent of their Corne, are hardly able to support their necessary charge nor the Landlord to uphold his rent." He hopes to stabilize prices by gathering stores in various parts of the kingdom, where, in

times of famine, corn will be sold at a fixed fair price.

The rapidly increasing population of London was a cause of great concern to the government, as it realized the dangers from disease in such a congested area. As Elizabeth herself put it, in a proclamation of 1580 against tenements: "Yet where there are such great multitudes of people brought to inhabitate in small roomes, whereof a great part are seene very poore, Yea, such as must live of begging, or by worse meanes, and they heaped up together, and in a sort smothered with many families of children and servantes in one house or small tenement, it must needes followe (if any plague or popular sicknes shoulde by Gods permission, enter amongst those multitudes) that the same would not only spread it selfe and invade the whole city and confines, as great mortalitie should ensue to the same." The aim of this law was to prohibit any new buildings within the city area, or the subdivision of existing houses into tenements.

Elizabeth's Stuart successors attempted to further these plans, but they met with vigorous opposition from selfish private interests, who put their own gain before the health of the community. Both James I and Charles I had very extensive schemes for city planning, regulating all phases of building. Among the proposals of Charles was this—"The windowes of every whole story to be of more height than breadth to the end the Roomes may receive ayre for health." In light of the recent survey of the present living conditions of the London poor, emphasizing the fact that large numbers still inhabit ill-lighted and unsanitary basement rooms, it is amazing to find that this law of Charles I prohibited cellars being used as lodgings. It is a sad commentary upon civilization that such far seeing plans were discarded under the *laissez faire* system.

However, the general efforts of Elizabeth did much to improve conditions, probably more effectively in the towns than in London itself, and I think it should be emphasized that the sanitary conditions of 16th century England were much better than we usually have been led to believe. J. H. Thomas, in an important recent work, "*Town Government in the Sixteenth Century*," has made a study of all phases of sanitation of some 12 English towns, and he says, "If a wider knowledge of town life as revealed by town *Records* refutes the view that towns remained filthy and entirely neglected by ignorant and irresponsible authorities, so must a fuller acquaintance with the little that is known about the origin of the diseases of the 16th century modify the opinion that town conditions caused those diseases." He compared the state of these towns in the 16th century with that in the middle of the 19th century, as revealed in the Royal Commission Survey of 1844-1845, and comes to the conclusion that in almost every respect the towns were cleaner and more healthy in the 16th century than they were in the 19th century. He says, "If some period in town life must be labelled as a time of in-sanitation, then the 19th century should be chosen."

One of the most important public health activities of the government was the control of epidemics. From the early part of the century the medical profession played a prominent part in this endeavor, through the College of Physicians. This had been founded in 1518 by Henry VIII on the advice of his physician, Thomas Linacre, and it is significant that from that very year date some of the most important public health measures, put into effect by the Privy Council, such as the isolation and marking of houses infected with plague, the isolation of clothes and goods of those dying of the plague, the first London Plague Orders, and the first

time Bills of Mortality are mentioned.

Considerable powers in matters of health were delegated to the College of Physicians, and also to the Barber-Surgeons Company, founded in 1540. Thus the College of Physicians had charge of the licensing of doctors in London and sought to curb the quacks and charlatans who preyed on the public. Since there was no such authority outside of London, a prominent physician, John Securis, suggested a strict licensing law for all physicians, surgeons, and apothecaries, on the basis of educational qualifications. On the advice of the College of Physicians, the apothecaries were taken out of the Grocers Company and set up as a separate company. From the appearance of most modern drug stores they seem to have gone back again. The apothecaries were required to adhere to the official *Pharmacopoeia* drawn up by the College. The proclamation ordering this move says it was done "out of Our Royall care for the health and preservation of our Subjects."

For control of the plague there were two sets of *Orders*, those for London and those for the country at large. In general, the provisions of these were much the same, although the organization differed. In London the Lord Mayor and the Aldermen were in charge, while in rural communities the Justices of Peace of a county, except those from infected areas, were to meet together, prescribe rules for the isolation of infected towns, and to put into effect the orders outlined by the government. The next provision in both of these *Orders* was a very necessary one, the raising of funds by taxation to meet the costs of the campaign. The government accepted the responsibility of relief in such a crisis. The money thus raised was to be used not only in general measures, but as the *Orders* themselves say "for the finding of victuall, or fire, or medicines for the poorer sort, during

the time of their restraint." Men were to be hired to examine all suspected patients in order to isolate all those infected and to obtain an estimate of the extent of the epidemic. The ministers, curates, and church wardens were to certify in writing the number of infected, and also of those dying within their parishes, with the probable cause of death. These findings were elaborated into the weekly and yearly Bills of Mortality. As such Bills apparently were used first in England, they mark the beginning of vital statistics.

Every house that contained one stricken with this dread disease was to be marked with a cross and the words "Lord have mercy upon us." Attempts were made to localize the epidemic and any infected person going abroad was treated as a felon. There were efforts made throughout the country to segregate plague patients in isolation hospitals. Sometimes these were rather makeshift dwellings outside the towns, but in 1592 a pesthouse was established in London.

Assemblies of people such as plays, bear-baitings, and fairs were forbidden. Sometimes the schools were closed. Preparations were made for the burial of the dead in a place apart. The clothes, bedding, and other goods of those dying or recovering from plague were usually burned, and the owner recompensed from the general funds.

At the end of the general *Orders* is a collection of remedies, "by the best learned in Physicke within this Realme . . . without charge to the meaner sort of people." The wealthy could afford to pay the doctor who cared for them during the plague, but poor people could not and the government provided such service. In 1583, in a translation of Ewich's *Of the Duetie of a Faithfull and Wise Magistrate*, it was suggested that the commonwealth hire physicians, surgeons, and apothecaries to deal with

plague patients. While this had been done sporadically, finally the College of Physicians put it into permanent practice, thus bringing into being the first Public Health Physician. These men were bound by oath to remain at their posts, and many died of plague. That their services were appreciated is shown by the provision for pensions to the widows of such doctors.

It would seem that everything humanly possible was done to combat the disease, along the lines of control measures. In spite of these efforts the plague continued its ravages, and in the more severe epidemics, as in 1603 and 1625, in each of which over one-sixth of the population died, the public became panic-stricken, and the system broke down. The rules could not be enforced, the dead were left unburied, and each one looked out for himself.

An element in increasing this state of panic was the teaching of certain religious fanatics that the plague was a sign of the wrath of God, that it was not infectious, and that to attempt to avoid it was an indication of a lack of faith in God. The government took a firm stand in this matter, and in the *Orders* there is a section forbidding persons "to utter such dangerous opinions upon payne of imprisonment." A number of preachers were thrown into jail for continuing to spread such doctrines.

The important lesson that may be learned from this experience of the past is the part that human frailty plays in the struggle against disease. Ignorance and fear can upset the most logical plan, and we have seen that when government became weak and lost its control, all the admirable efforts in housing and pure food regulations were sacrificed to selfish greed. Education can do much to overcome ignorance but also there must be courageous and strong leadership and a determined social-consciousness of the public.